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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
ACTING AS RECEIVING OFFICE FOR THE PCT

10/019795

In re Application of: § Attorney Docket No.: Muller-41  
§  
Rainer Gloeckler and Arnold Meyer § U.S. Serial No.: 10/019,795  
§  
Int'l. Appln. No.: PCT/DE00/02138 § U.S. Filing Date: January 04, 2002  
§  
Int'l. Filing Date: 05 July 2000 §  
§  
Priority Date: 06 July 1999 §  
§  
For: *Method of Producing Aluminum  
Hydroxides by Precipitating  
Aluminum Salts in the Presence  
of Seed Crystals* §  
[as amended] §

**TRANSMITTAL LETTER**

Box PCT  
Commissioner for Patents  
Washington, D.C. 20231

Attn.: DO/EO/US

Sir:

Enclosed for filing in the captioned application is the English translation of the International Preliminary Examination Report. The Commissioner is authorized to charge any fees that may be due or credit any overpayment in connection with this application to Deposit Account No. 02-4345. This authorization is provided in duplicate.

Respectfully submitted,

C. James Bushman  
Reg. No. 24,810

Date: 2/12/02  
Browning Bushman P.C.  
5718 Westheimer, Suite 1800

**CERTIFICATE OF EXPRESS MAILING**

I, Cathy Hayes, hereby certify that this correspondence and all referenced documents were mailed by me with the U.S. Postal Service as

By Cathy Hayes

10/019795

Translation

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

|   |   |   |
|---|---|---|
| Applicant's or agent's file reference<br>D-99 0104 PCT                                    | <b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416) |   |
| International application No.<br>PCT/DE00/02138   | International filing date (day/month/year)<br>05 July 2000 (05.07.00)   | Priority date (day/month/year)<br>06 July 1999 (06.07.99) |
| International Patent Classification (IPC) or national classification and IPC<br>C01F 7/34 |   |   |
| Applicant   | SASOL GERMANY GMBH  |   |

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 5 sheets, including this cover sheet.

This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 2 sheets.

3. This report contains indications relating to the following items:

- I  Basis of the report
- II  Priority
- III  Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV  Lack of unity of invention
- V  Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI  Certain documents cited
- VII  Certain defects in the international application
- VIII  Certain observations on the international application

Date of submission of the demand

Date of completion of this report

Name and mailing address of the IPEA

Authorized officer

Facsimile No.

Telephone No.

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/DE00/02138

## I. Basis of the report

1. This report has been drawn on the basis of (Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments)

- the international application as originally filed.
- the description, pages 1-13, as originally filed.  
pages \_\_\_\_\_, filed with the demand.  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- the claims, Nos. \_\_\_\_\_, as originally filed.  
Nos. \_\_\_\_\_, as amended under Article 19,  
Nos. \_\_\_\_\_, filed with the demand.  
Nos. 1-11, filed with the letter of 08 October 2001 (08.10.2001).  
Nos. \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- the drawings, sheets/fig \_\_\_\_\_, as originally filed.  
sheets/fig \_\_\_\_\_, filed with the demand.  
sheets/fig \_\_\_\_\_, filed with the letter of \_\_\_\_\_  
sheets/fig \_\_\_\_\_, filed with the letter of \_\_\_\_\_

## 2. The amendments have resulted in the cancellation of:

- the description, pages \_\_\_\_\_
- the claims, Nos. \_\_\_\_\_
- the drawings, sheets/fig \_\_\_\_\_

3.  This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

## 4. Additional observations, if necessary:

**INTERNATIONAL PRELIMINARY EXAMINATION REPORT**

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**IV. Lack of unity of invention**

1. In response to the invitation to restrict or pay additional fees the applicant has:

- restricted the claims.
- paid additional fees.
- paid additional fees under protest.
- neither restricted nor paid additional fees.

2.  This Authority found that the requirement of unity of invention is not complied with and chose, according to Rule 68.1,  
not to invite the applicant to restrict or pay additional fees.

3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is

- complied with.
- not complied with for the following reasons:

**SEE SEPARATE SHEET** all parts the parts relating to claims Nos. \_\_\_\_\_

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

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**I. Basis of the report**

1. This report has been drawn on the basis of (Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.).

3...

See Box VIII.

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|--|
| International application No.<br>PCT/DE 00/02138 |
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**Supplemental Box**  
(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: IV. 3

The invention as per Claim 1 and the invention as per Claim 2 lack unity since the common concept linking the two inventions cannot be considered patentable. It is clear from the citations, such as EP-A-0 304 721, for example, that the production of alumina hydrates by precipitation of basic and/or acidic aluminium salts out of an aqueous medium containing seed crystals having an average diameter of 20 nm is already known.

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|                               |
|-------------------------------|
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## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

## 1. Statement

|                               |        |                  |     |
|-------------------------------|--------|------------------|-----|
| Novelty (N)                   | Claims | 1 - 10           | YES |
|                               | Claims | 11               | NO  |
| Inventive step (IS)           | Claims | 2, 6             | YES |
|                               | Claims | 1, 3 - 5, 7 - 10 | NO  |
| Industrial applicability (IA) | Claims | 1 - 11           | YES |
|                               | Claims |                  | NO  |

## 2. Citations and explanations

The new D1 (EP-A-030421) almost fully discloses a method as per the definition of Claim 1, although the amount of seed crystals is preferably set at above 7.5 wt %. However, an amount of 1 wt % can be used (see Example III). Therefore the choice of amounts of between 0.1 and 5 wt % cannot be considered patentable and would never be regarded as critical for obtaining unexpected results. The further features in Claims 3-5 and 7-10 are known from the cited literature.

The alternatives in Claim 2 or Claim 6, which are based on the use of polymers, can, however, be considered patentable.

Boehmitic aluminas as per the definition in Claim 11 are inherently intended to be produced according to the method of D1. The crystallite size is preferably less than 5 nm and the further properties are intended to lie in the claimed ranges. Products of this type are also known from WO-A-99/03783 and EP-A-849 223.

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**VIII. Certain observations on the international application**

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

The range of 1.25 to 1.6 ml/g in the new Claim 11 is not supported by the original application. Although a value of 1.25 ml/g is disclosed in Example 4, it is achieved only in conjunction with a given method (and in given conditions) and a given product. It is therefore impossible to extend this value to all the claimed products and method conditions. The fact that a value of 1.25 mg/l is not achieved when organic seeds are used (see examples) also shows that this amendment is unacceptable.